Illinois Department of
Natural Resources
One Natural Resources Way Springfield, Illinois 62702-1271
http://dnr.state.il.us

Pat Quinn, Governor
Marc Miller, Director

July 9, 2010

Barry Stuedemann
Entrix, Inc.
1000 Hart Road
Barrington, IL 60010

RE: Oiltanking
IDNR Project #1010544 and 1009740

Dear Mr. Stuedemann;

This letter is in reference to the project recently submitted through the EcoCAT (Ecological Compliance Assessment Tool) website. The initial report generated for your project indicated the presence of protected resources in the vicinity of the project location. Protected resources include Blodgett Road Dolomite Prairie Illinois Natural Areas Inventory (INAI) Site, Illinois River – Dresden INAI Site, Des Plaines Dolomite Prairies Land and Water Reserve, Blanding's turtle (*Emydoidea blandingii*), buffalo clover (*Trifolium reflexum*), common moorhen (*Gallinula chloropus*), false mallow (*Malvastrum hispidum*), least bittern (*Ixobrychus exilis*), quillwort (*Isoetes butleri*), redveined prairie leafhopper (*Aflexia rubranura*), slender sandwort (*Minuartia patula*), and upland sandpiper (*Bartramia longicauda*).

The Department has completed its review of the project and determined that the action is likely to have an adverse impact on this unique habitat. To minimize these impacts, the Department recommends the following measures be implemented by the developer and incorporated in the IEPA's project authorization.

Blanding's Turtles
These turtles eat, breed and hibernate in water, preferring shallow, quiet, vegetated, muddy-bottomed lakes or ponds. Adult habitat is typically quiet waters in marshes, sedge meadow, or wet prairies. Turtles come out of hibernation commencing in March. In April or May of each year, the turtles breed; in late May and June the females lay a clutch of 10-15 eggs. They may travel considerable distances over land to lay their eggs away from wet areas. In August or September the hatchlings begin to emerge and then must travel considerable distances to reach aquatic habitats.

Eggs are laid in gravelly/sandy soil from June through September; nesting periods may be earlier or later depending on the prevailing weather for the year and the amount of successful basking by females. South-facing open areas are preferred. Eggs take up to 60 days to incubate, so hatchlings may be present from late July to as late as November. Hatchling gender is determined

by egg temperature at a specific stage of development; warmer temperatures produce females, slightly cooler temperatures produce males.

Blanding's turtles are the longest-lived North American Turtle, with documented ages over 65 years; females do not reach reproductive maturity until 16-20 years of age and do not necessarily lay a clutch every year. Being a long-lived species, clutches are relatively small, seldom exceeding a dozen eggs. Reduction of nesting habitat, nest predation, and the untimely loss of breeding-age females to road-kill and reptile collectors are major threats to this species. Females are at greater risk because they are exposed during the nesting process.

Blanding's turtles are omnivorous, but, like snapping turtles, appear to prefer feeding on fish, amphibians, and insect larvae. A healthy ecosystem with a complete food web is important to them.

Urban environments with heavy vehicular traffic, frequent exposure to humans, and many barriers to overland movement, not to mention degradation of water quality and the aquatic environment is detrimental to them.

The Department feels it is very likely that Blanding's Turtles occupy or transit this parcel. The Department is concerned with the effect that development of this property will have on this species; development of this parcel is likely to cause loss access to breeding (wetland) and nesting (upland) habitat for this species. Construction activities may cause turtles to become trapped within the confines of the property and/or be crushed by equipment or vehicles. Once construction is complete, rail tracks and roads may act as barriers to the turtles as they travel to and from nesting areas.

To prevent turtles from entering construction areas, exclusionary fencing should be in place by the end of March and maintained through October; daily inspections should be conducted during the construction period to ensure that exclusionary fencing is properly installed (dug into the ground) and to check if turtles are present;

If possible, construction activities, especially near wetlands, should be limited to between September 15 and April 1. Females start basking in April and hatchlings can still be active, and traveling back to wetlands, up until October;

Routinely inspect trenches and excavations before starting work each day to assure no turtles have become trapped within them. Make sure trenches and excavated areas are covered each evening to avoid trapping any amphibians or reptiles.

The property should have signs to encourage safe passage for turtles. Employees should be told that these turtles are state-listed and should be protected.

Water Quality Concerns:

The detention basin should be re-designed to allow more time for water quality benefits to be maximized: bottom of the basin should not be flat; a beam within the interior portion of the basin that is 1.5 - 2.0 feet high should be incorporated; to lengthen flow path before water is released, inlets and outlets should have

the maximum amount of distance between them; and native vegetation should be incorporated in and around the basin in the multiple planting zones.

Vegetated filter strips and buffers should be planted with native vegetation to assist with pollutant adsorption, soil stabilization, and provide some water absorption. Filter strips receive runoff thereby slowing runoff speed, trapping sediment and pollutants, and reducing the rate and volume of storm water runoff. Native vegetation is recommended for all areas that will be landscaped, including the detention basin. See the USDA Natural Resource Conservation Service "Illinois Native Plant Guide" and the City of Chicago's, "A Guide to Storm water Best Management Practices" for assistance. Not only will native landscaping aid in pollutant absorption, but it will stabilize the soil, reduce soil erosion, reduce the need for fertilizers and pesticides and will dissuade Canada Geese from congregating near the basins.

Silt fences, soil stabilization and runoff control measures should be incorporated throughout the entire construction site and during the entire construction period. These should be inspected on a daily basis to ensure they are working properly and that Blanding's turtles are not in the construction area.

When artificial lighting is considered essential, mercury vapor, metal halide, or fluorescent lamps should be used in this order of preference. High-pressure sodium lamps should be avoided and even low-intensity incandescent is best excluded due to its high output of infrared and potential impact. Fixtures shielded so that all of the light is directed toward the ground onto vehicular traffic and away from plants should be employed to reduce light pollution and harm to trees. In all cases, up lighting and shining light over great horizontal distances should be avoided. Lights should be turned off or dimmed during off-peak hours to avoid continuous lighting of trees, which has the greatest potential for upsetting normal growth patterns.

Commercial lighting tends to have a greater impact from fugitive light. With commercial buildings, lights are usually larger, brighter, placed on higher standards, and may be left on during all hours of darkness. This can draw night-flying insects in and away from their normal locations, impacting the food availability of nocturnal predators and degrading ecological conditions. Placing lighting on timers alleviates some of this concern.

The proposed project bisects unique habitat and poses a barrier to movement. Transportation corridors are a major source of invasive species. Strong consideration should be given to mitigation for habitat loss by removal of invasive woody vegetation such as buckthorn and honeysuckle.

Consultation on the part of the Department is completed. Please notify the Department of the decision regarding these recommendations, whether the applicant will:

- Proceed with the action as originally proposed;
- Modified the action per Department recommendations (please specify which measures if not all will be required); or
- Forgo the action.

This consultation is valid for two years unless new information becomes available that was not previously considered; the proposed action is modified; or additional species, essential habitat, or Natural Areas are identified in the vicinity. If the project has not been implemented within two years of the date of this letter, or any of the above listed conditions develop, a new consultation is necessary.

The natural resource review reflects the information existing in the Illinois Natural Heritage Database at the time of the project submittal, and should not be regarded as a final statement on the site being considered, nor should it be a substitute for detailed site surveys or field surveys required for environmental assessments. If additional protected resources are encountered during the project's implementation, you must comply with the applicable statutes and regulations. Also, note that termination does not imply IDNR's authorization or endorsement of the proposed action.

Please contact me if you have questions regarding this review.

Sincerely,

Tracy Evans
Impact Assessment
(217) 782-7940

cc: Ray Fano, Geopool Engineering
Pat Babineaux, Oiltanking
Jenny Skufca, Illinois Nature Preserves Commission
Kim Roman, Illinois Nature Preserves Commission